

**REMARKS/ARGUMENTS**

Upon entry of this amendment, which amends claims 2 and 14-22, claims 1-22 remain pending. In the Office Action to which this paper is responsive, claims 1, 2, 4-9, and 14-22 were rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,789,154 to Lee et al. (Lee). Claim 3 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Lee in view of U.S. Patent No. 5,790,849 to Crocker et al. (Crocker). Claim 10 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Lee in view of U.S. Patent Application No. US 2004/0181806 to Sullivan. (Sullivan). Claims 11-13 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Lee in view of U.S. Patent No. 6,078,339 to Meinerth et al. (Meinerth).

Reconsideration in view of the following remarks is respectfully requested.

Technical Amendments to the Claims

Claims 2 and 14-22 have been amended to correct minor informalities discovered therein, specifically the misspelling of the word "aperture." These amendments are not intended to affect the scope of the claims.

35 U.S.C. § 102(e) Rejection of claims 1, 2, 4-9, and 14-22

Claims 1, 2, 4-9, and 14-22 were rejected under 35 U.S.C. § 102(e) as being anticipated by Lee. Applicants respectfully traverse.

Claim 1 recites a "method of configuring a *broadcast* aperture for transferring data between a processor and a plurality of graphics devices," The method includes configuring a bridge that is "adapted to facilitate transferring data between a processor and a plurality of graphics devices" and "configuring the bridge with a second set of configuration data, thereby activating a *broadcast* aperture." A broadcast aperture, as explained in the present specification, enables the CPU to communicate with all of the graphics devices in the system simultaneously. Thus, data can be distributed simultaneously without the need for subsequent steps of copying and transferring.

Lee does not disclose or even suggest a *broadcast* aperture or a bridge that facilitates the activation of a broadcast aperture. The bridge disclosed in Lee allows data to be copied from one memory location to another, but the bridge does not transmit data to multiple

memory locations at the same time. In addition, Lee does not disclose or fairly suggest any form of simultaneous or broadcast data distribution to multiple devices.

Instead, Lee is directed to a data router, called a bridge, that routes data sequentially to graphics processors. Lee's bridge receives data from a data bus and routes the data, based upon the destination address, to the appropriate graphics processor unit. (See Lee, col. 4, lines 8-21.) Also, Lee's bridge supports the transfer of data from the memory of one graphics processor unit to the memory of another graphics processor unit without having to access the system processor.

Thus, the method disclosed in Lee provides for data routing to different devices on a per-request basis, but it does not provide for simultaneous routing (or broadcasting) of data to multiple devices. Lee does not disclose any method to *broadcast* data simultaneously to multiple graphics devices, let alone the particular method recited in claim 1.

For at least these reasons, claim 1 is patentable over Lee. Claims 2, and 4-9, which depend from claim 1, are also patentable for at least these reasons.

Independent claim 14 was rejected for the same reasons as claim 1. Claim 14 is directed to "[a]n apparatus for transferring data to a plurality of graphics devices." The apparatus includes "a graphics device broadcast unit responsive to the set of data received via a broadcast aperture" Thus, like claim 1, claim 14 recites a broadcast aperture. For at least the reasons discussed above with regard to claim 1, claim 14 is also patentable over Lee. Further, claims 15-22, which depend from claim 14, are also patentable for at least these reasons.

Withdrawal of the rejection of claims 1, 2, 4-9, and 14-22 under 35 U.S.C. § 102(e) is respectfully requested.

#### 35 U.S.C. § 103(a) Rejection of Claim 3

Claim 3 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Lee in view of Crocker. Applicants respectfully traverse.

Claim 3 depends from claim 1, and the rejection of claim 3 is premised on the assertion that Lee discloses the features recited in claim 1 and Crocker discloses the remaining features of claim 3. As discussed above, however, Lee does not disclose or even suggest all

features recited in claim 1. As best understood, Crocker provides no teaching or suggestion that would remedy this deficiency. Therefore, the rejection is based on a flawed premise and cannot be maintained. Accordingly, Applicants respectfully request withdrawal of the rejection of claim 3.

For at least these reasons, Applicants respectfully submit that claim 3 is patentable over the cited references.

35 U.S.C. § 103(a) Rejection of Claim 10

Claim 10 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Lee in view of Sullivan. Applicants respectfully traverse.

Claim 10 ultimately depends from claim 1, and the rejection of claim 10 is premised on the assertion that Lee discloses the features recited in claim 1 and Sullivan discloses the remaining features of claim 10. As discussed above, however, Lee does not disclose or even suggest all features recited in claim 1. As best understood, Sullivan provides no teaching or suggestion that would remedy this deficiency. Therefore, the rejection is based on flawed premise and cannot be maintained.

Further, Sullivan does not disclose transferring data *between graphics devices* via a digital video connection as claim 10 recites. Rather, Sullivan discloses a method for transmitting a video signal to a display device. (See Fig. 1 of Sullivan.) The method of Sullivan operates by preparing and transmitting digital video signals via a radio frequency (RF) interface to a display device. (See Sullivan paragraph 31 describing the invention.) The digital signal is prepared by first converting an analog video signal into a digital signal, then compressing that signal. After preparation, the RF signal is digitally modulated for long distance transmission to a display device over an RF cable. (See Fig. 3 of Sullivan describing the transmitting device.)

In other words, Sullivan teaches a method to transmit analog video signals in a digital format to a video device over long distances. No teaching or suggestion could be found in Sullivan relating to transferring rendered image data from one graphics device to another graphics device via a digital video connection as recited in claim 10. Indeed, Sullivan makes no mention of any graphics devices.

Moreover, there is no motivation to combine the references. Sullivan discloses a method to convert analog video signals to digital form and to compress and modulate the digital signals for long distance transmission to an external display source. Lee, on the other hand, discloses an internal data routing mechanism for internal computer graphics buses within a single computer system. There is no motivation to adopt a long distance (over 150 feet) RF cable transmission method for a computer system that needs to transmit data over extremely short distances on a data bus. Further, data within a computer system is already in a digital format, so there is no need for the analog to digital conversion disclosed in Sullivan. Thus, a person of ordinary skill in the art would not have been motivated to combine Sullivan with Lee in the manner proposed.

For at least these reasons claim 10 is also patentable over the cited references. Withdrawal of the rejection of claim 10 under 35 U.S.C. § 103(a) is respectfully requested.

35 U.S.C. § 103(a) Rejection of Claims 11-13

Claims 11-13 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Lee in view of Meinerth. Applicants respectfully traverse.

Claims 11-13 depend from claim 1, and the rejection of claim 1 is premised on the assertion that Lee discloses the features recited in claim 1 and Meinerth discloses the remaining features of claims 11-13. As discussed above, however, Lee does not disclose or even suggest all features recited in claim 1. As best understood, Meinerth provides no teaching or suggestion that would remedy this deficiency. Therefore, the rejection is based on a flawed premise and cannot be maintained. Accordingly, Applicants respectfully request withdrawal of the rejection of claims 11-13.

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**CONCLUSION**

In view of the foregoing, Applicants believe all claims now pending in this Application are in condition for allowance. The issuance of a formal Notice of Allowance at an early date is respectfully requested.

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 650-326-2400.

Respectfully submitted,



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